BookletChart™

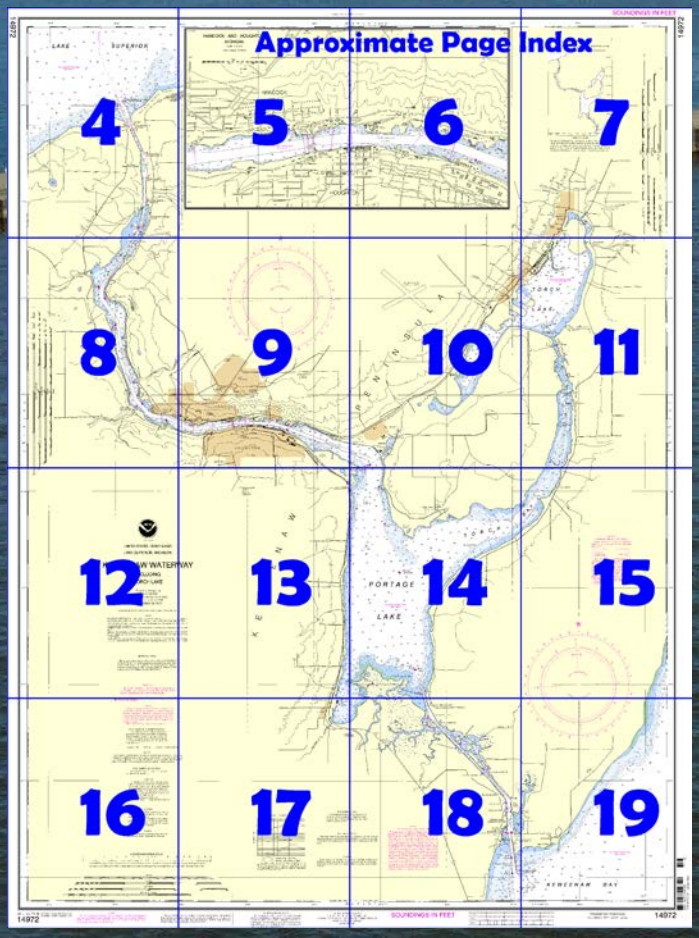
Keweenaw Waterway, Including Torch Lake

NOAA Chart 14972

A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.

- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=14972.

(Selected Excerpts from Coast Pilot)
Keweenaw Waterway, about 25 miles long, crosses **Keweenaw Peninsula** from Keweenaw Bay on the southeast side to the open water of Lake Superior on the northwest side. The waterway follows Portage River from its mouth in Keweenaw Bay for 5 miles to Portage Lake, thence extends for 17.5 miles through the lake to its head, and thence follows a dredged cut from the head of Portage Lake to Lake Superior.

Regulations.–An 8 mph (7 knots) **speed limit** is enforced in Keweenaw Waterway. (See **33 CFR 162.115,** chapter 2, for regulations.)

On the vessel route between Sault Ste. Marie and Duluth, the distance through the waterway is about 5 miles greater than by the open lake route. However, between Marquette and Duluth the waterway provides a savings of about 22 miles, and between Marquette and Ashland a savings of about 26 miles, as compared with the route around the outside of Keweenaw Point. The use of the waterway for refuge is indicated by the fact that more freight passes through the canals in October and November, the stormy season, than at any other time in the year, although the commerce on Lake Superior, as shown by the records at the Sault and at the head of the lake, is heaviest during July and August.

The East entrance in Keweenaw Bay is protected by a breakwater that extends south from the east side of the mouth of Portage River. The breakwater should not be approached closer than 20 feet by vessels exceeding a 12-foot draft as it is lined with riprap on the channel side. The entrance at Lake Superior is protected by converging breakwaters.

Keweenaw Waterway Lower Entrance Light (46°58'08"N., 88°25'51"W.), 68 feet above the water, is shown from a white octagonal tower on the outer end of the breakwater on the east side of the Keweenaw Bay entrance to the waterway. The light has a mariner radio activated sound signal is initiated by keying the microphone five times on VHF-FM channel 79.

Portage River Harbor of Refuge is just inside the lower entrance to the waterway at the mouth of Portage River. This 0.5-mile-long basin has a revetment with bollards on the west side where vessels may moor.

A small settlement with docks of commercial fishermen is on the west side of the river mouth south of the mooring pier. Marinas at the settlement provide limited transient berths, gasoline, water, electricity, and launching ramps. A marine railway and a 20-ton lift are available for repairs. Water and a launching ramp are available north of the mooring pier.

Portage River, the natural outlet of Portage Lake, forms part of the Keweenaw Waterway for 5 miles from its mouth in Keweenaw Bay to Portage Lake.

Portage Lake, about 17.5 miles long, is generally narrow, resembling a river, but has no sensible current. The lower 3.5 miles of the lake, locally known as Big Portage, is over 2 miles wide. Portage River flows from the southeast corner of the lake, and **Pike Bay** is in the southwest corner, the two being divided by the flats at the mouth of **Sturgeon River.** About 3 miles north of the head of Portage River, the lake is divided by **Grosse Point. Torch Bay** extends east from the point. The main body of the lake extends 2 miles north, thence turns west at **Pilgrim Point** for about 5.5 miles between the towns of Hancock and Houghton, and thence extends north for about 5 miles to the head of the lake. Above Grosse Point, the lake narrows to 0.5 mile and in the upper part has widths of 0.15 to 0.4 mile.

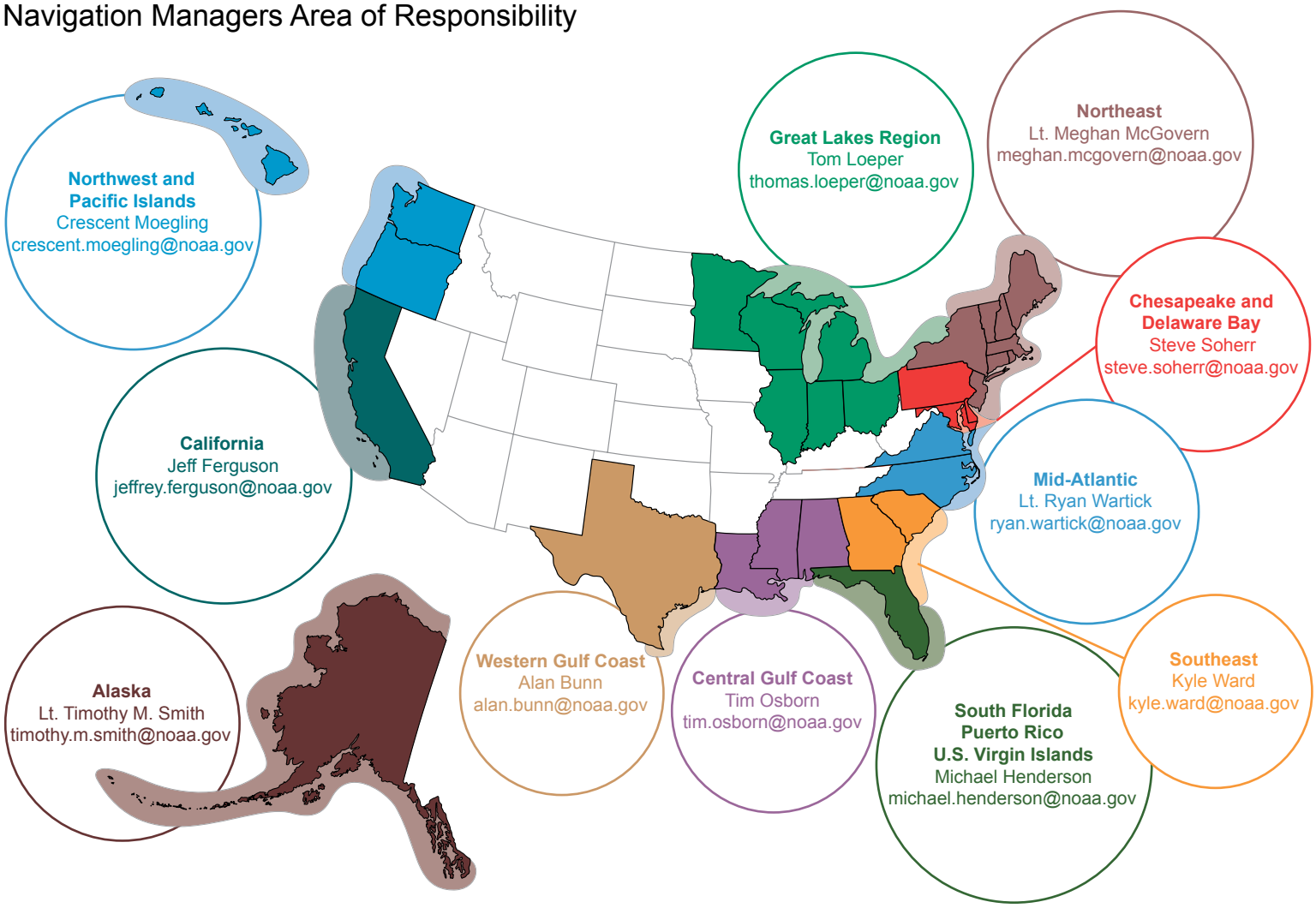
A 19-foot spot and a 20-foot spot are in the north part of Portgage Lake about 0.7 mile and 1.8 miles south of Pilgrim Point Light, respectively. A shoal marked by buoys, extends about 240 yards off the east shore of the waterway about 1.3 miles north-northwest of Grosse Point. The shoal also extends into the north part of Portage Lake for about 0.7 mile southeast of Grosse Point.

Pike Bay, at the southwest corner of Portage Lake, is entered through a narrow channel with depths of about 9 feet. The pile remains of a former lumber wharf are on the west side of the bay at the village of **Chassell, MI**.

U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies

RCC Cleveland	Commander 9th CG District Cleveland, OH	(216) 902-6117

Navigation Managers Area of Responsibility

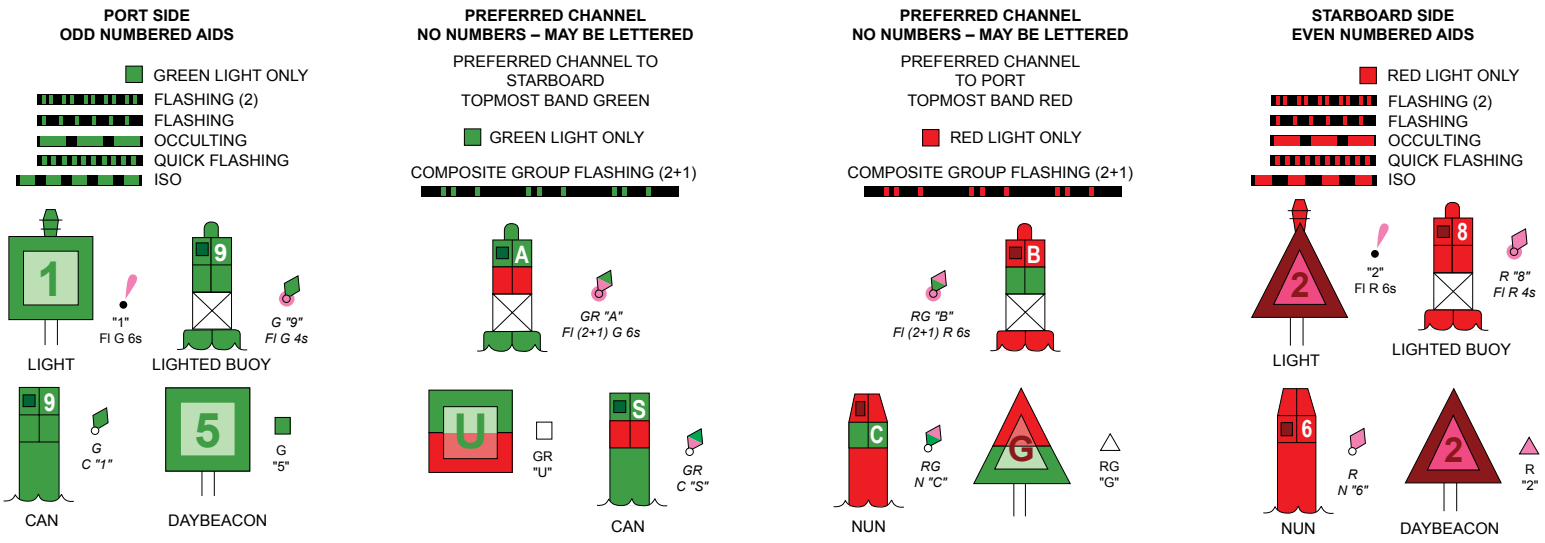


NOAA's navigation managers serve as ambassadors to the maritime community. They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit *nauticalcharts.noaa.gov/service/navmanagers*

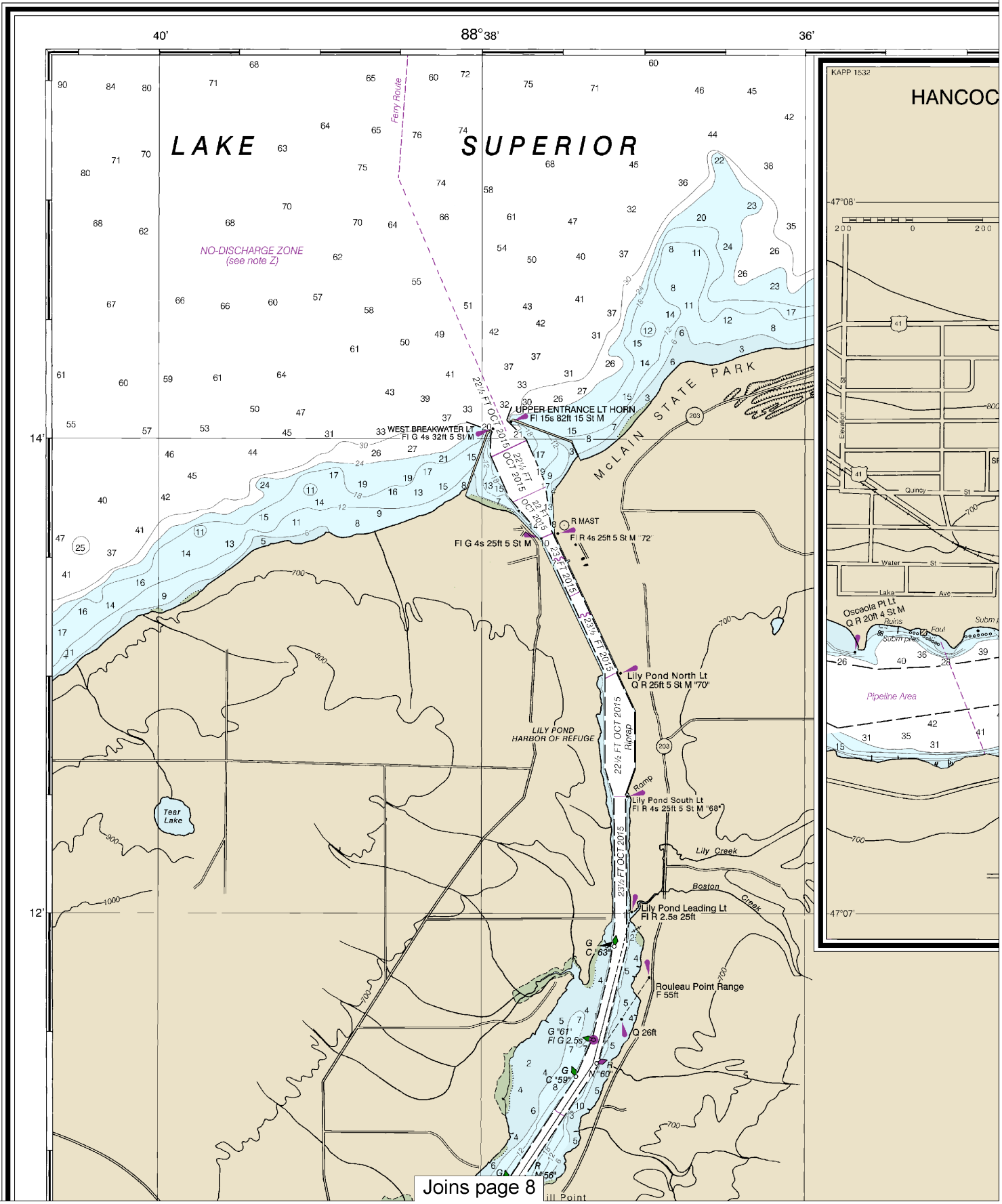
To make suggestions or ask questions online, go to *nauticalcharts.noaa.gov/inquiry*.
To report a chart discrepancy, please use *ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx*.

Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area. These volumes are available online at *http://www.navcen.uscg.gov*



4

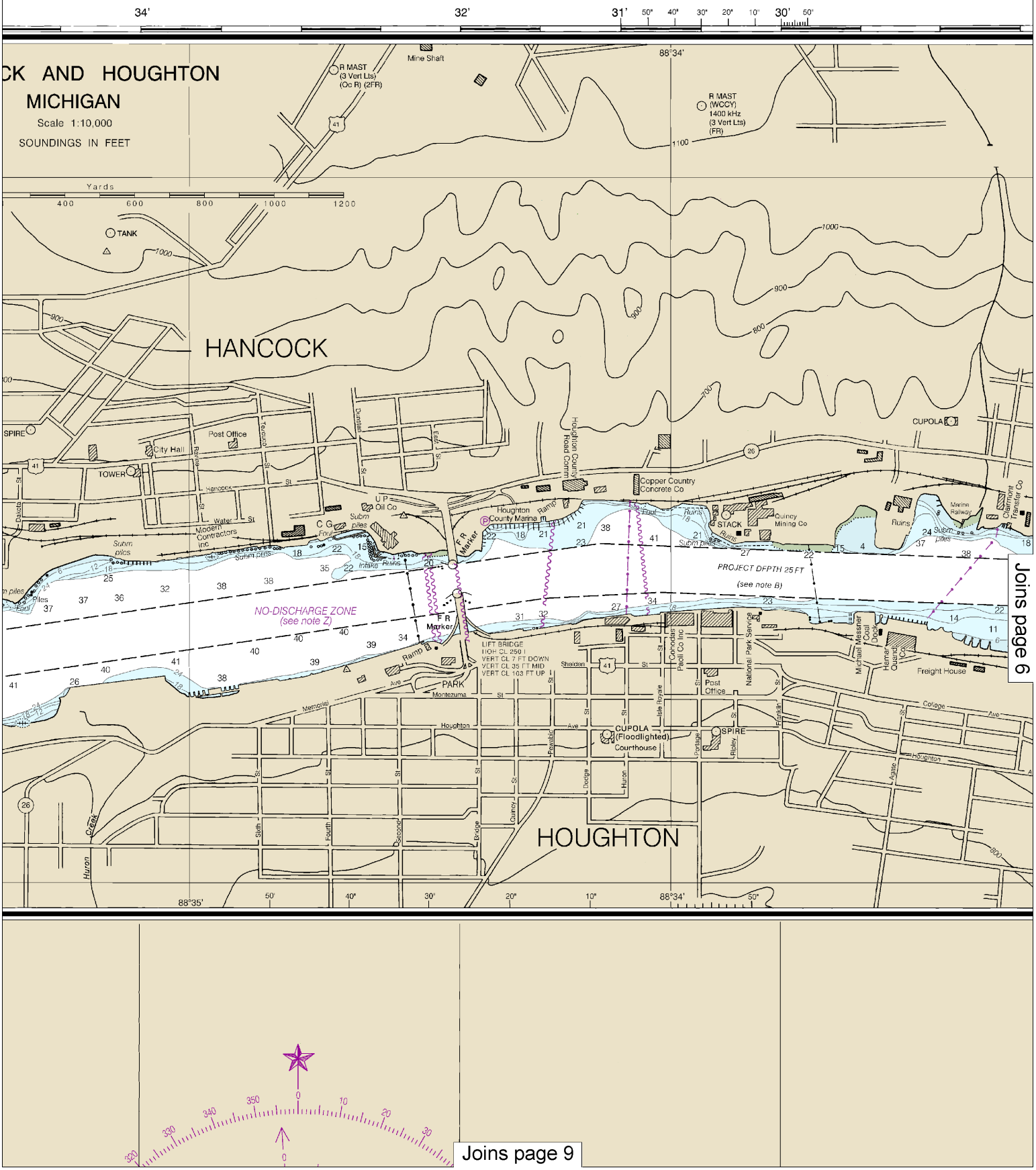
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:30,000~~

Nautical Miles: 1 0 1 2

Yards: 1000 0 1000 2000 3000

See Note on page 5.



This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:40000. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.

Printed at reduced scale. ~~SCALE 1:30,000~~

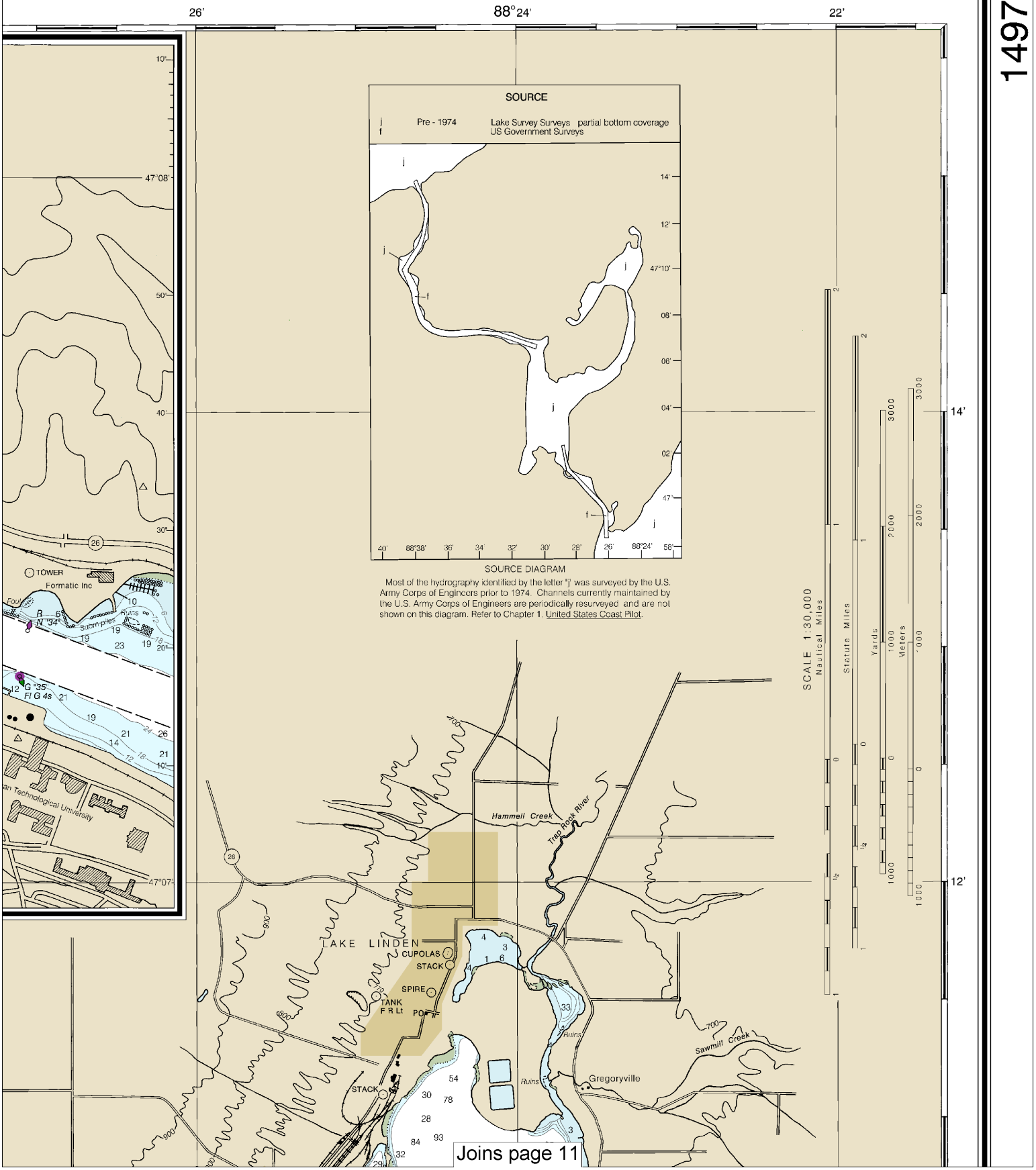
Nautical Miles: 1 0 1 2

Yards: 1000 0 1000 2000 3000

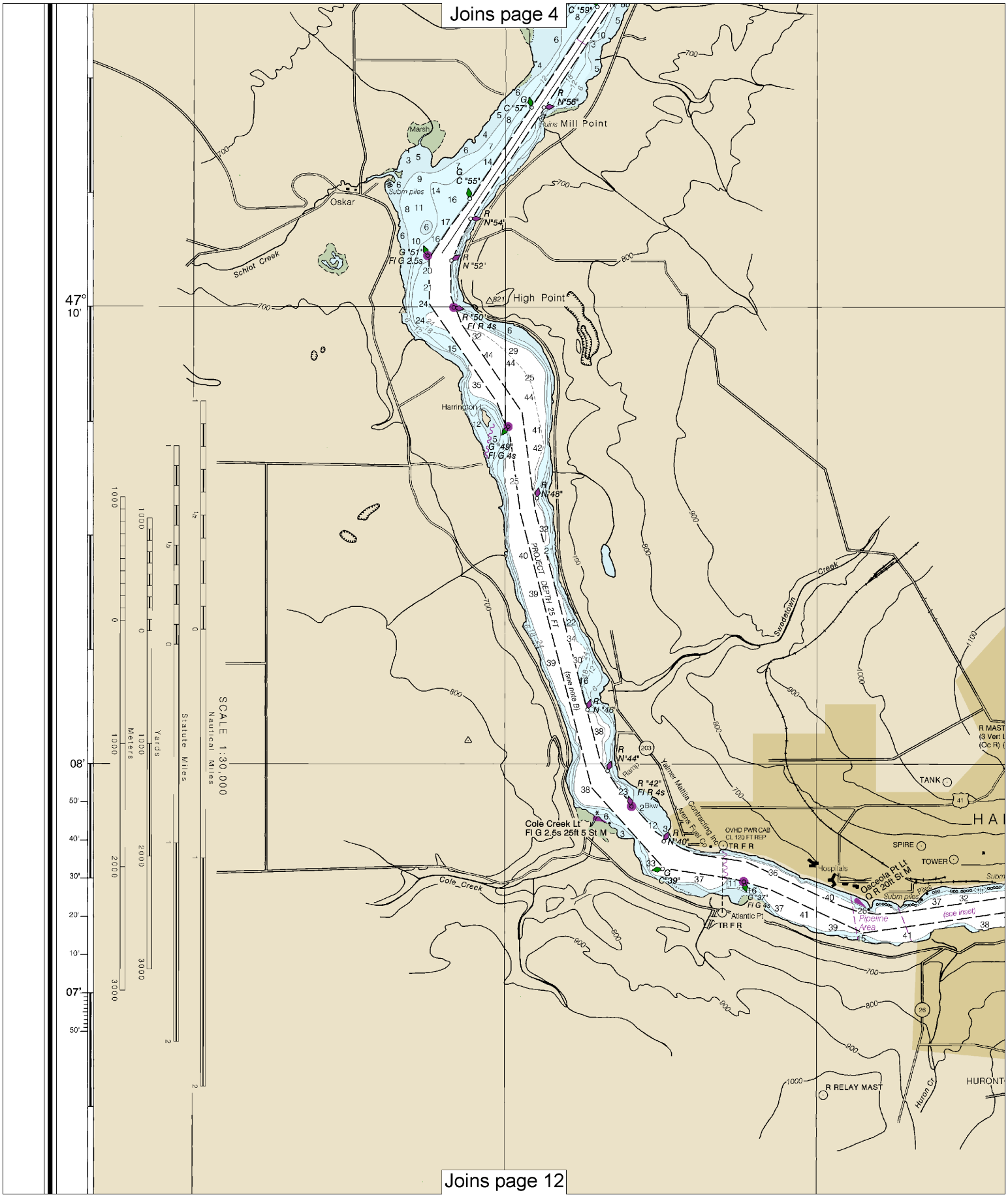
See Note on page 5.

Note: Chart grid lines are aligned with true north.

14972



Last Correction: 6/8/2016. Cleared through:
LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)



8

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:30,000~~

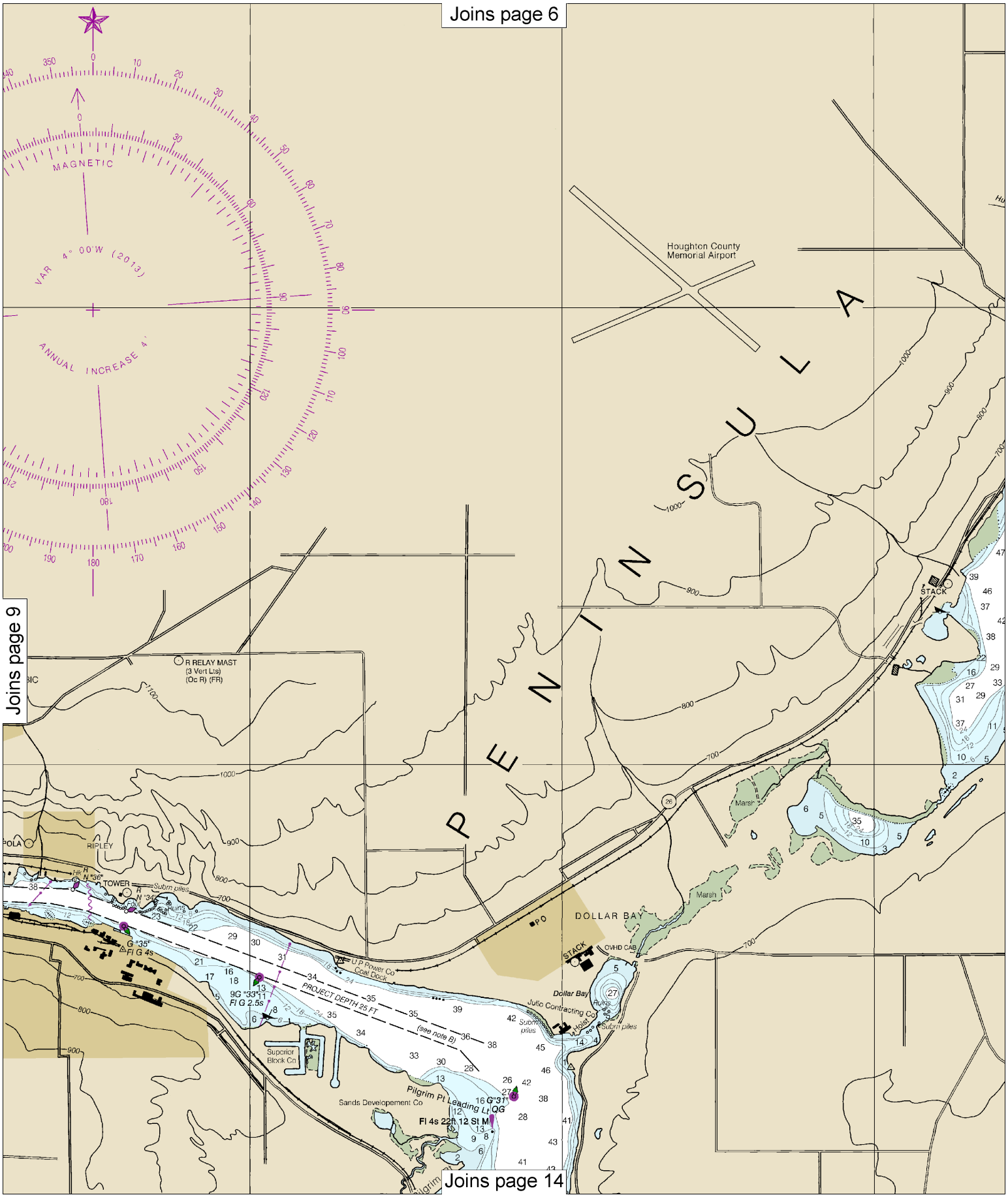
Nautical Miles: 1 0 1 2

Yards: 1000 0 1000 2000 3000

See Note on page 5.

Joins page 5
Joins page 10
Joins page 13
MAGNETIC
VAR 4° 00'W (2013)
ANNUAL INCREASE 4'
Houghton County
Memorial Airport
P E N I N S U L
FRANKLIN
MINE
STACKS
PEWABIC
R RELAY MAST
(3 Vert Lts)
(Oc R) (FR)
Mine Shaft
R MAST
(WCCY)
1400 kHz
(3 Vert Lts)
(FR)
CUPOLA
RIPLEY
STACK
Foul
Ruins
(see inset)
TOWER
Subm piles
LIFT BRIDGE
HOR CL 250 FT
VERT CL 7 FT DOWN
VERT CL 35 FT MID
VERT CL 103 FT UP
PO
SPIRE
CUPOLA
(Floodlighted)
HOUGHTON
TANK
G "35"
Fl G 4s
9G "33"
Fl G 2.5s
PROJECT DEPTH 25 FT
(see note B)
U P Power Co
Coal Dock
Superior
Block Co
Sands Developement Co
Pilgrim Pt Leading Lt
Fl 4s 22ft 12 St M
G "31"
QG
Pilgrim Pt
DOLLAR BAY
STACK
OVHD CAB
Dollar Bay
Julio Contracting Co
Hoist
Marsh

Joins page 6



Joins page 9

Joins page 14

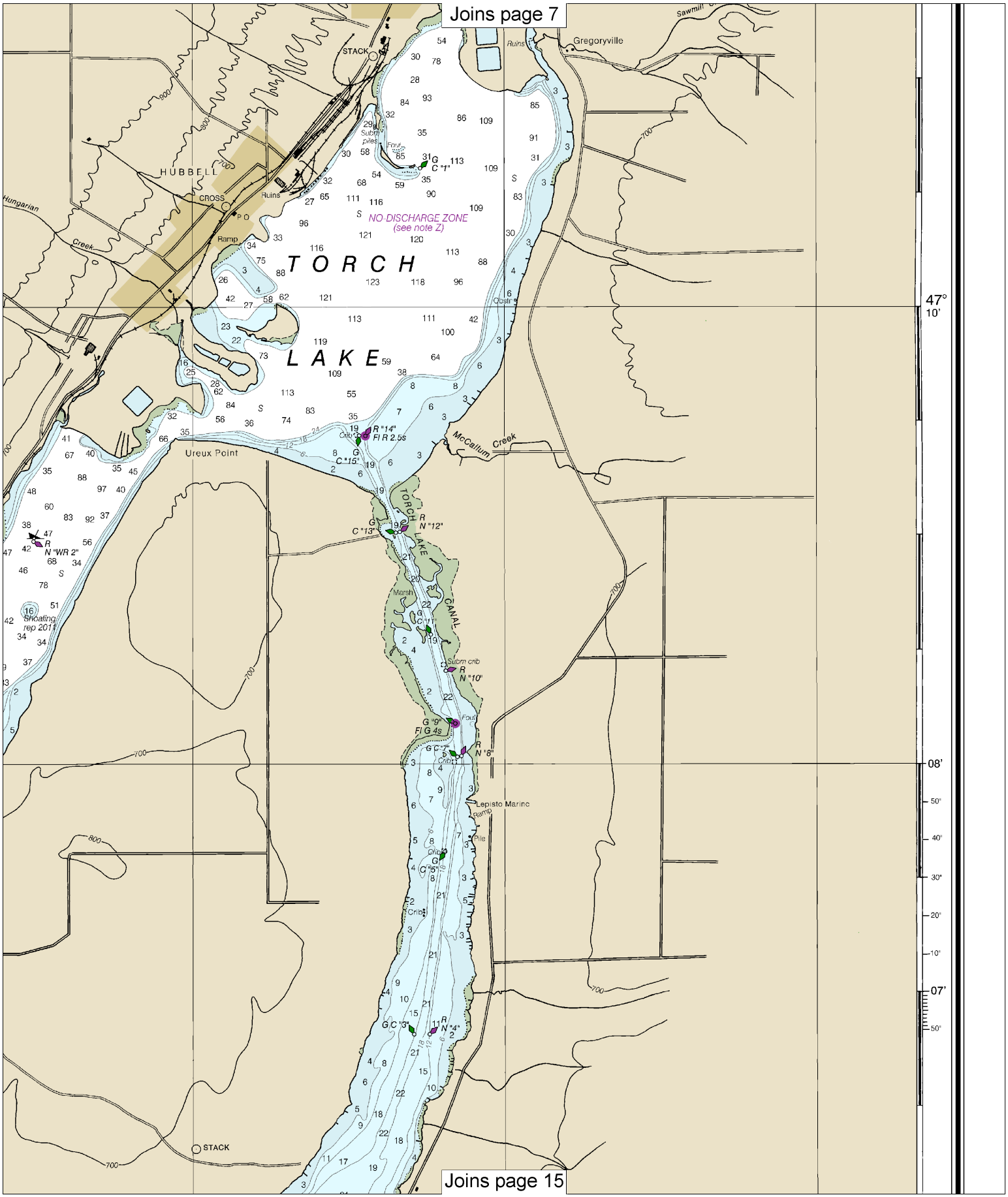
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:30,000~~

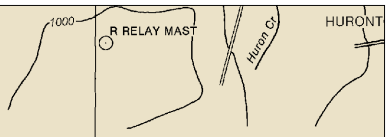
Nautical Miles: 1 0 1 2

Yards: 1000 0 1000 2000 3000

See Note on page 5.


Joins page 7
STACK
Gregoryville
Ruins
Sawmill
HUBBELL
CROSS
P O
Ruins
Hungarian
Creek
Ramp
NO-DISCHARGE ZONE
(see note Z)
T O R C H
L A K E
Subm piles
Foul
G "1"
R "14"
Fl R 2.5s
G "15"
Ureux Point
McCallum Creek
TORCH LAKE
R "12"
G "13"
R "WR 2"
Shoaling rep 2011
Marsh
CANAL
G "11"
Subm crib
R "10"
G "9"
Fl G 4s
Foul
G C "7"
R "8"
Crib
Lepisto Marine
Ramp
Pile
Crib
G C "5"
Crib
G C "3"
R "4"
STACK
Joins page 15
47° 10'
08'
07'
50'
40'
30'
20'
10'
50'

Joins page 8



06'

04'

02'

THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - GREAT LAKES

LAKE SUPERIOR, MICHIGAN

KEWEENAW WATERWAY

INCLUDING

TORCH LAKE

Polyconic Projection
Scale 1:30,000
North American Datum of 1983
(World Geodetic System 1984)
SOUNDINGS IN FEET

Additional information can be obtained at nauticalcharts.noaa.gov.

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum).....601.1 ft.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).
AIDS TO NAVIGATION. Consult U.S. Coast Guard LIght List for supplemental information concerning aids to navigation.
SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1
BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.
AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1902 must be corrected an average of 0.574" southward and 0.794" westward to agree with this chart.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

Ⓟ Pump-out facilities

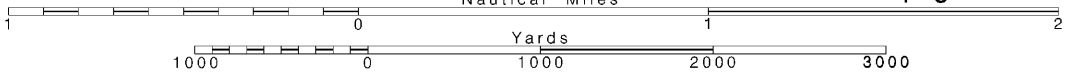
NOTE A

vigation regulations are published in Chapter 2, U.S. Pilot 6. Additions or revisions to Chapter 2 are pub

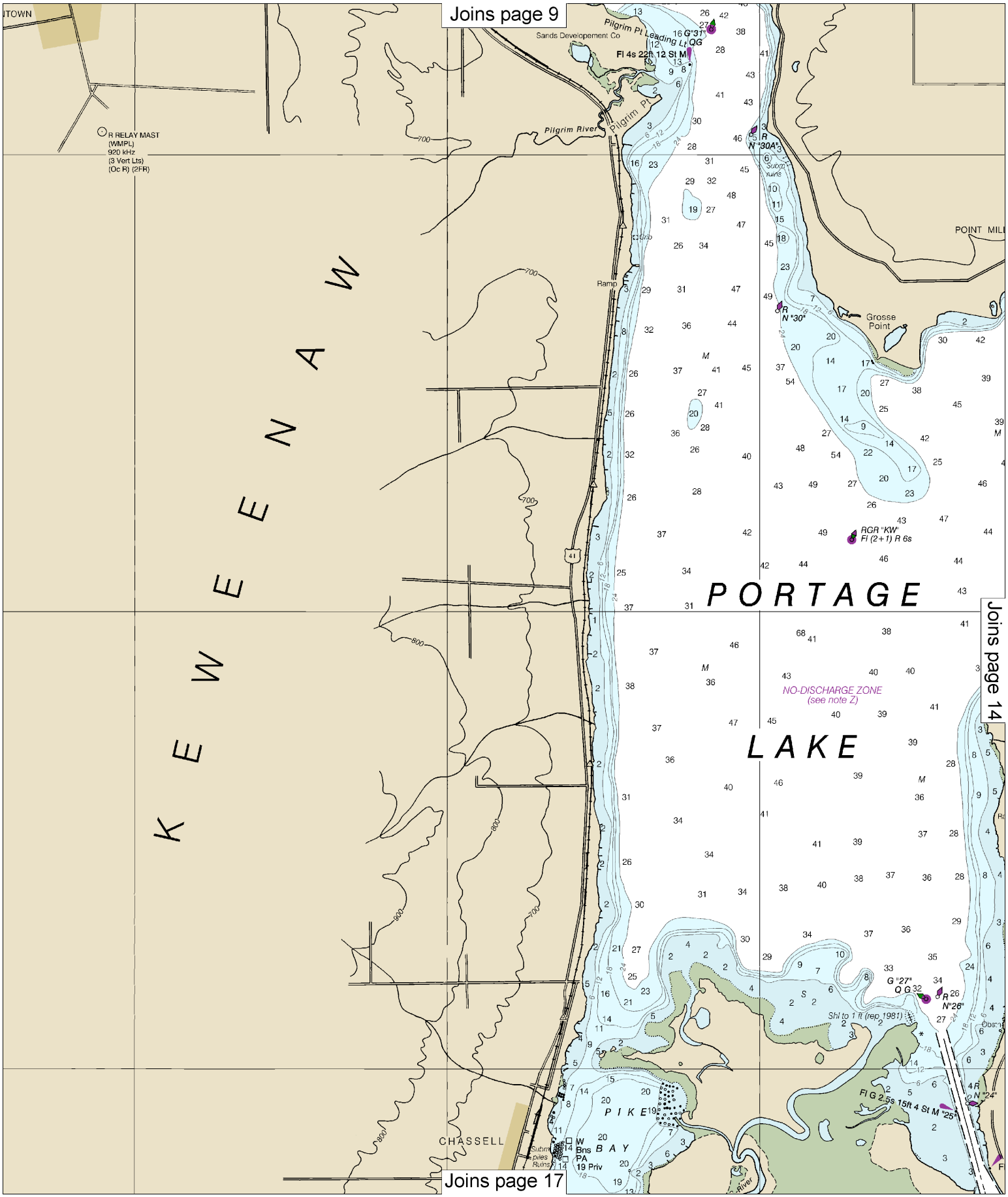
Joins page 16

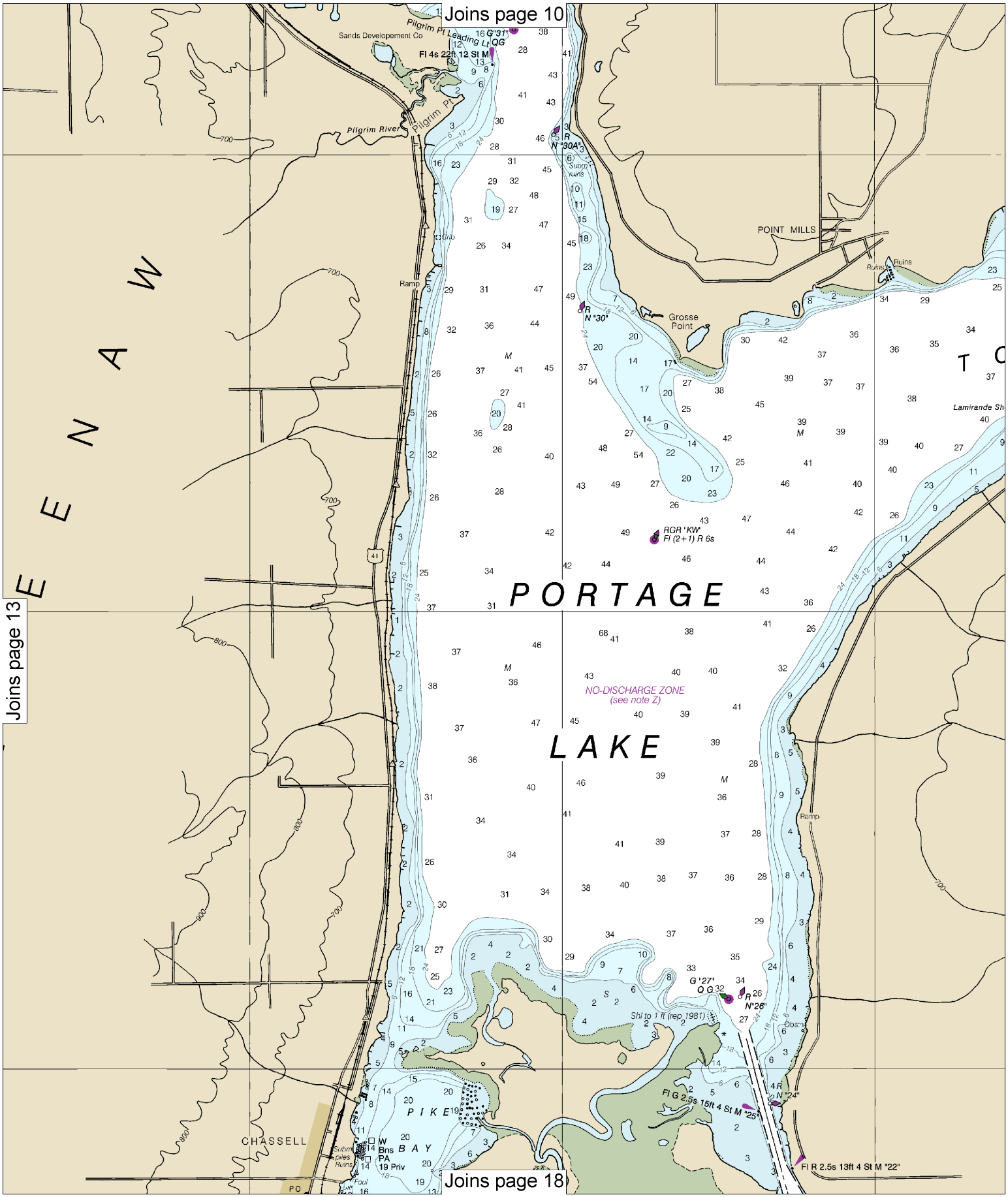
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:30,000~~



See Note on page 5.


Joins page 9
Pilgrim Pt Leading Lt QG
Fl 4s 22ft 12 St M
Sands Developement Co
Pilgrim River
Pilgrim Pt
R RELAY MAST
(WMPL)
920 kHz
(3 Vert Lts)
(Oc R) (2FR)
KEWEENAW
Ramp
Grosse Point
POINT MILL
RGR "KW"
Fl (2+1) R 6s
PORTAGE
LAKE
NO-DISCHARGE ZONE
(see note Z)
Shl to 1 ft (rep 1981)
Fl G 2.5s 15ft 4 St M "25"
PIKE BAY
CHASSELL
Joins page 14
Joins page 17



14

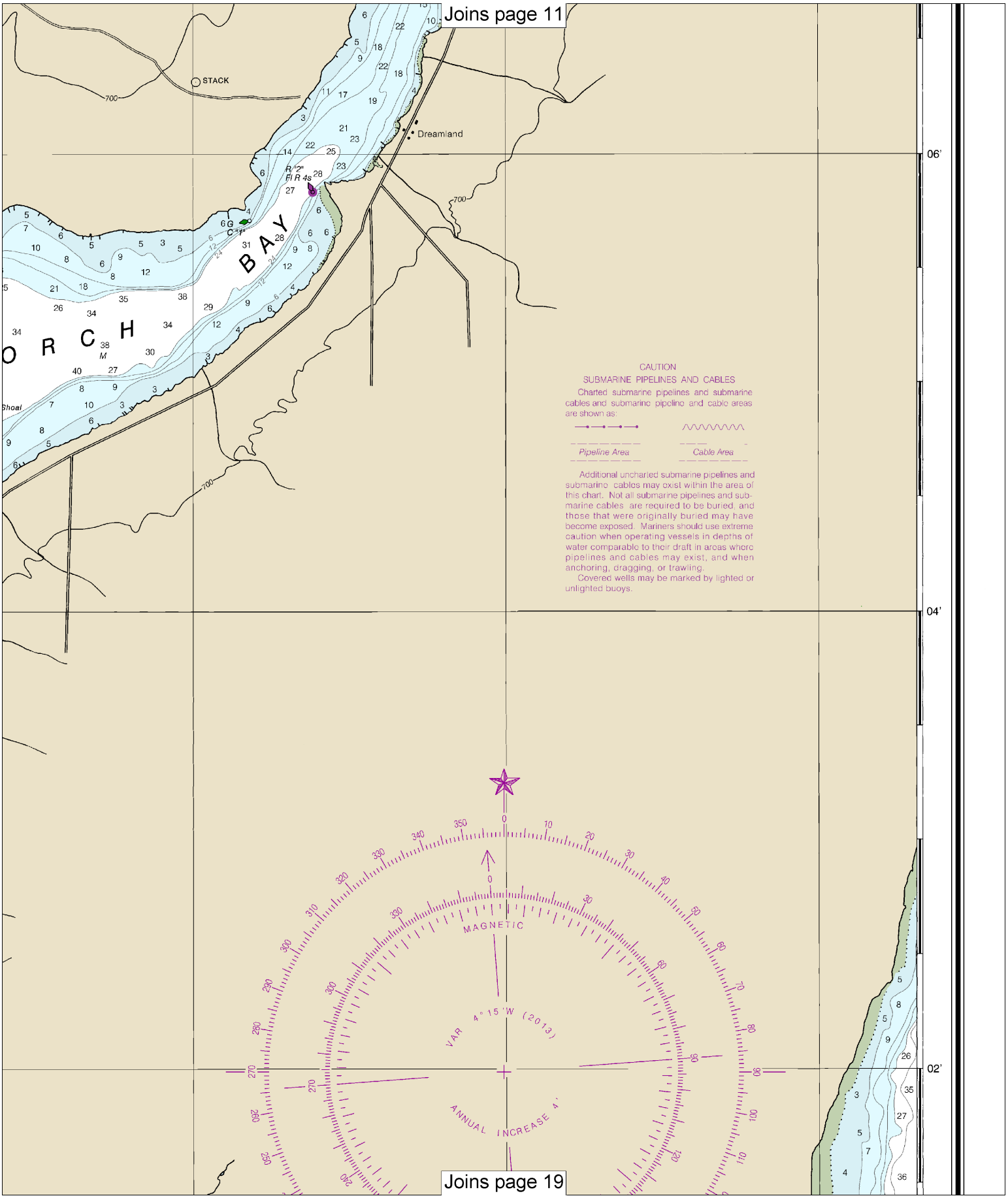
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:30,000~~

Nautical Miles: 1 0 1 2

Yards: 1000 0 1000 2000 3000

See Note on page 5.


Joins page 11
STACK
Dreamland
BAY
R "2"
Fl R 4s
Fl G 4s
CAUTION
SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:
Pipeline Area
Cable Area
Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.
Covered wells may be marked by lighted or unlighted buoys.
MAGNETIC
VAR 4° 15'W (2013)
ANNUAL INCREASE 4'
06'
04'
02'
Joins page 19

Joins page 12

WARNING

udent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

Ⓟ Pump-out facilities

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Detroit, Michigan.

Refer to charted regulation section numbers.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Houghton, MI WXK-73 162.400 MHz (Chan WX-2)

NOTE B

The channel legend reflects the Corps of Engineers project depth. The Corps of Engineers publishes the controlling depth periodically in the U.S. Coast Guard Local Notice to Mariners. For further information on channel depths, direct inquiries to the Office of the District Engineer, Corps of Engineers, Detroit, Michigan.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 for important supplemental information.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

47°

58'

SCALE 1:30,000

Nautical Miles

½ 0 1 2

Statute Miles

1 ½ 0 1 2

Yards

1000 0 1000 2000 3000

Meters

1000 0 1000 2000 3000

40' 88°38' 36'

27th Ed., Dec. 2013

14972

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

NOAA encourages users to submit inquiries, discrepancies about this chart at http://www.nauticalcharts.noaa.gov/staff/cont

Last Correction: 6/8/2016. Cleared through:
LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:30,000~~

Nautical Miles

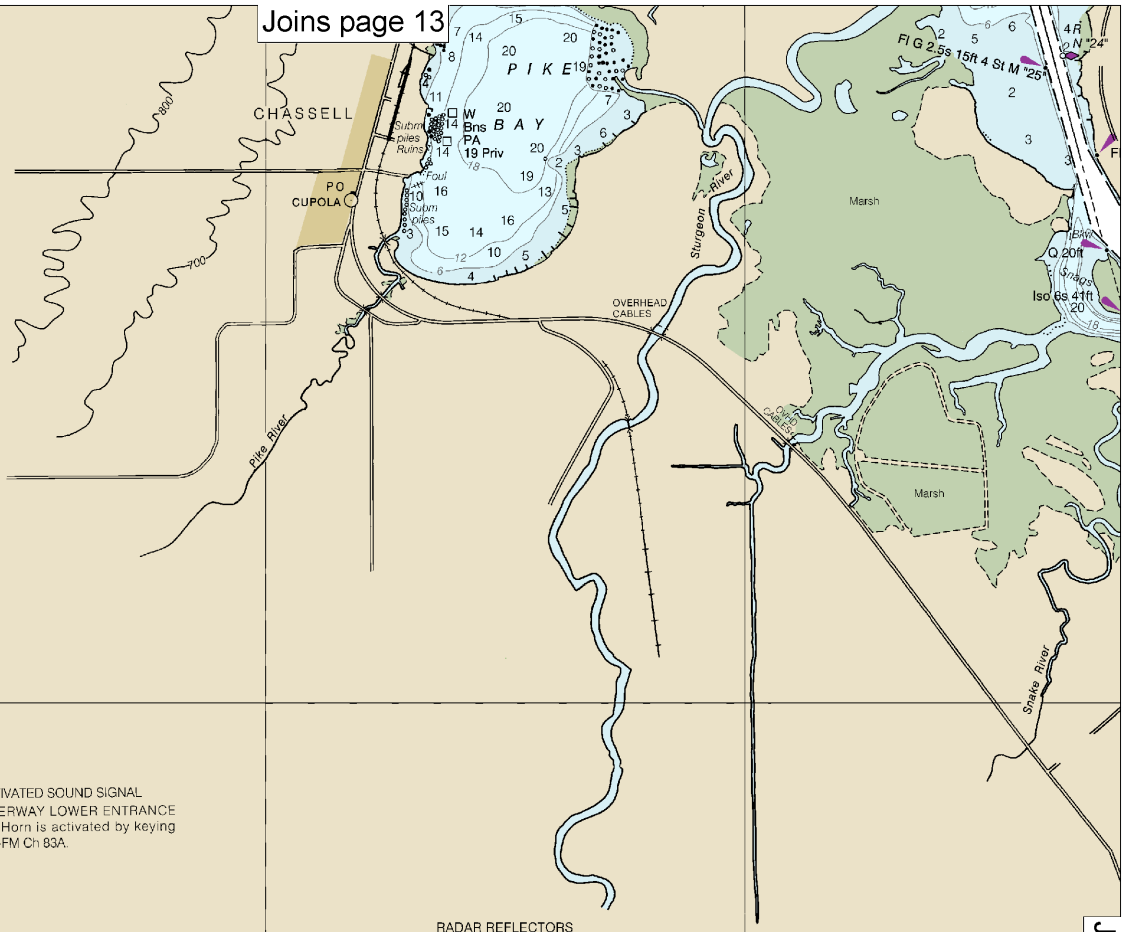
1 0 1 2

Yards

1000 0 1000 2000 3000

See Note on page 5.

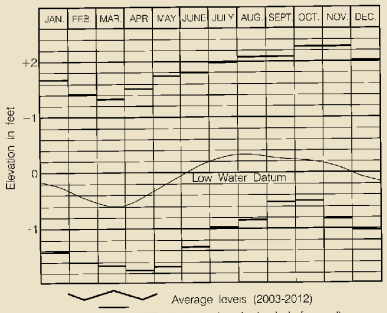
Joins page 13



MARINER ACTIVATED SOUND SIGNAL

KEWEENAW WATERWAY LOWER ENTRANCE LIGHT - (MRASS) Horn is activated by keying mic 5 times on VHF-FM Ch 83A.

LAKE SUPERIOR



Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

NOTE Z
NO-DISCHARGE ZONE, 40 CFR 1

Michigan waters of Lakes Michigan, Hur
Erie and St. Clair, all waterways connected th
inland lakes are designated as a No-Dischar
This chart falls entirely within the limits of a No-Dis
Zone (NDZ). Under the Clean Water Act, Section
vessels operating within a No-Discharge Zone (NI
completely prohibited from discharging any sewage,
or untreated, into the waters. Commercial vessel s
shall include graywater. All vessels with an installed
sanitation device (MSD) that are navigating, m
anchored, or docked within a NDZ must have th
disabled to prevent the overboard discharge of s
(treated or untreated) or install a holding tank. Regu
for the NDZ are contained in the U.S. Coast
Additional information concerning the regulatio
requirements may be obtained from the Environ
Protection Agency (EPA) web site: http://www.ep
owow/oceans/regulatory/vessel_sewage/.

Joins page 18

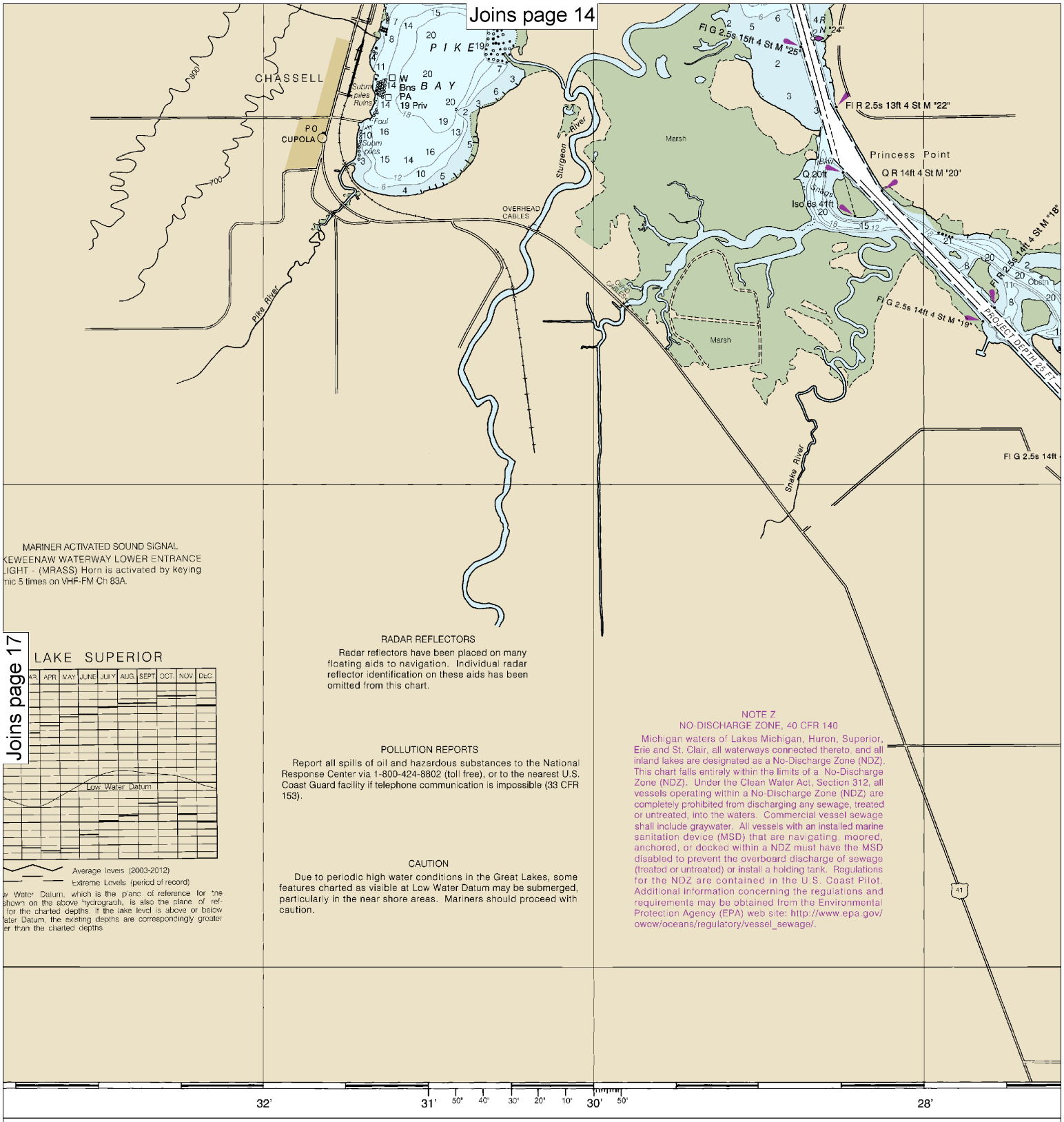
34' 32' 31' 50" 40" 30" 20" 10" 30' 50"

es or comments
ontact.htm.

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

SOUNDINGS I

Joins page 14



MARINER ACTIVATED SOUND SIGNAL
KEWEENAW WATERWAY LOWER ENTRANCE
LIGHT - (MRASS) Horn is activated by keying
mic 5 times on VHF-FM Ch 83A.

Joins page 17

LAKE SUPERIOR

Average levels (2003-2012)
Extreme Levels (period of record)

...w Water Datum, which is the plane of reference for the shown on the above hydrograph, is also the plane of ref- for the charted depths. If the lake level is above or below ater Datum, the existing depths are correspondingly greater er than the charted depths.

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CAUTION

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NOTE Z
NO-DISCHARGE ZONE, 40 CFR 140

Michigan waters of Lakes Michigan, Huron, Superior, Erie and St. Clair, all waterways connected thereto, and all inland lakes are designated as a No-Discharge Zone (NDZ). This chart falls entirely within the limits of a No-Discharge Zone (NDZ). Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. Commercial vessel sewage shall include graywater. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

SOUNDINGS IN FEET

FATHO
FEE
METE

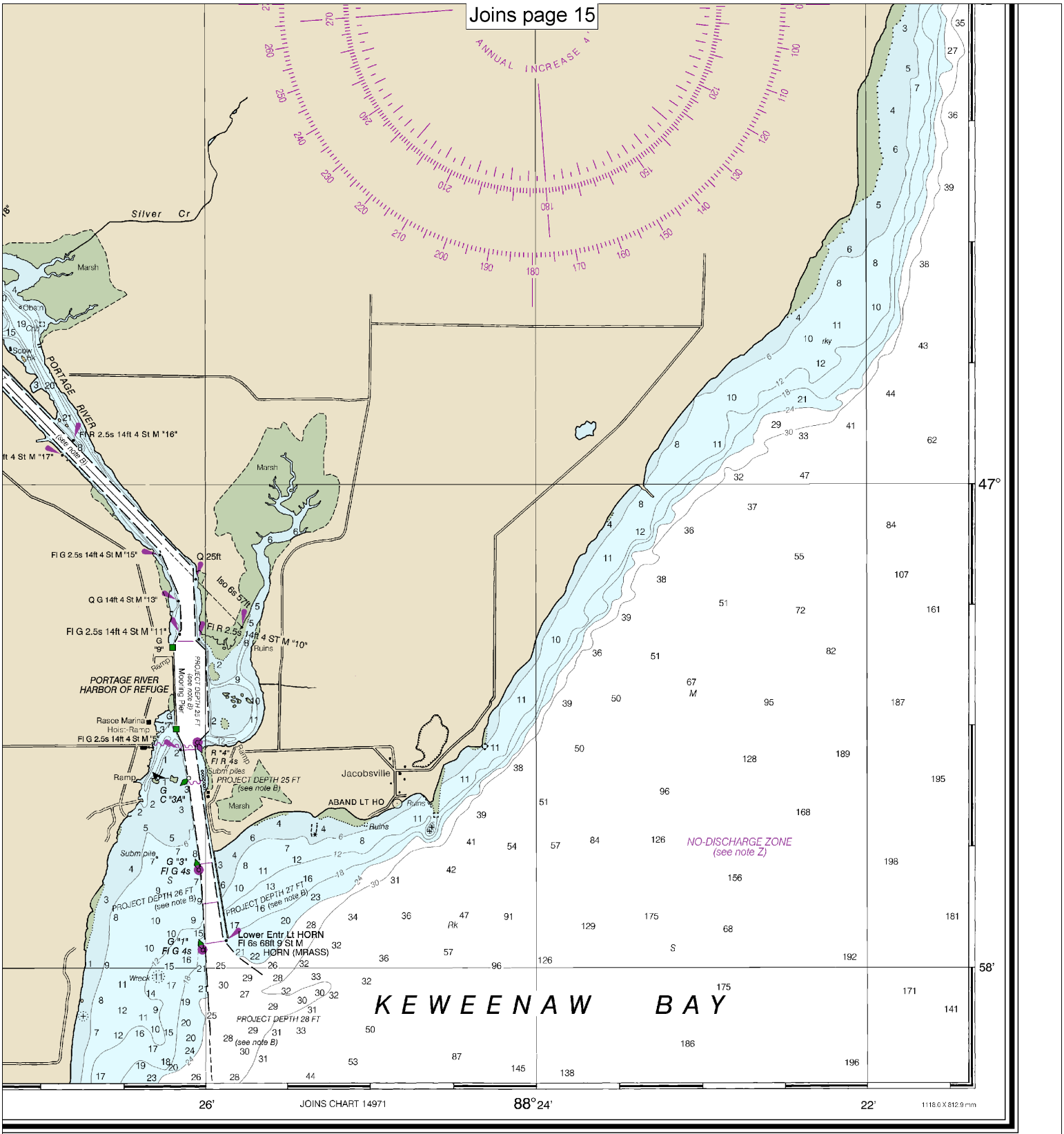
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:30,000~~

Nautical Miles
1 0 1 2

Yards
1000 0 1000 2000 3000

See Note on page 5.



HOMS
EET
TERS

Keweenaw Waterway

SOUNDINGS IN FEET - SCALE 1:30,000

14972

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

All Hazards NOAA Weather Radio NOAA's National Weather Service

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.
http://www.nws.noaa.gov/nwr/

Quick References

Nautical chart related products and information	—	**http://www.nauticalcharts.noaa.gov**
Interactive chart catalog	—	**http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml**
Report a chart discrepancy	—	**http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx**
Chart and chart related inquiries and comments	—	**http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs**
Chart updates (LNM and NM corrections)	—	**http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html**
Coast Pilot online	—	**http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm**
Tides and Currents	—	**http://tidesandcurrents.noaa.gov**
Marine Forecasts	—	**http://www.nws.noaa.gov/om/marine/home.htm**
National Data Buoy Center	—	**http://www.ndbc.noaa.gov/**
NowCoast web portal for coastal conditions	—	**http://www.nowcoast.noaa.gov/**
National Weather Service	—	**http://www.weather.gov/**
National Hurrican Center	—	**http://www.nhc.noaa.gov/**
Pacific Tsunami Warning Center	—	**http://ptwc.weather.gov/**
Contact Us	—	**http://www.nauticalcharts.noaa.gov/staff/contact.htm**

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